

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12 (canceled)

13. (canceled)

14. (previously presented) A material system for use in 3D-printing comprising:
a solvent,
a binder soluble in the solvent, and
optionally, filler materials,
wherein the material system contains two complementary polyelectrolytes and/or an initiator for a crosslinking reaction of the binder, and
wherein the two complementary polyelectrolytes are contained in two binders, respectively, or in a binder and in the solvent.

15. (currently amended) A material system according to claim ~~13~~ 14, wherein the initiator is contained in the solvent or in the one or both binders.

16. (previously presented) A material system according to claim 15, wherein the initiator is a photoinitiator.

17. (currently amended) A material system according to claim ~~13~~ 14, wherein the filler material is coated with the binder.
18. (currently amended) A material system according to claim ~~13~~ 14, wherein the material system is residual-ash-poor.
19. (currently amended) A material system according to claim ~~13~~ 14, wherein the material system is flowable in an autoclave.
20. (currently amended) A material system according to claim ~~13~~ 14, wherein at least a substantial portion of the powder and binder is in the form of rounded-off particles.
21. (previously presented) A material system according to Claim 20, wherein average particle diameter of said particles is smaller than approximately 40 μm .
22. (previously presented) A material system for use in 3D-printing comprising:
 - a solvent,
 - a binder soluble in the solvent, and
 - optionally, filler materials,wherein the material system contains two complementary polyelectrolytes and/or an initiator for a crosslinking reaction of the binder, and
 - wherein the filler material is comprised of wax, PS, PMMA or POM.
23. (currently amended) A material system according to claim ~~13~~ 14, wherein the filler material is comprised of metal, ceramic or carbide.

24. (currently amended) A material system according to claim ~~13~~ 14, wherein the binder is comprised of a water-soluble polymer.
25. (previously presented) A material system according to claim 24, wherein the water-soluble polymer is PVP or a copolymer thereof.
26. (previously presented) A material system for use in 3D-printing comprising:
a solvent,
a binder soluble in the solvent, and
optionally, filler materials,
wherein the material system contains two complementary polyelectrolytes and/or an initiator for a crosslinking reaction of the binder, and
wherein the binder comprises less than 10 weight percent of the material system.
27. (previously presented) A process for producing a three dimensional shape, the process comprising:
(a) providing a layer of a solvent-soluble binder and, optionally, filler materials,
(b) printing said layer with a solvent in a pattern to activate said binder,
(c) repeating steps (a) and (b) until said three-dimensional shape is formed,
wherein the material system comprised of binder, solvent and optionally filler materials contains two

U.S. Application No. 09/870,286
AMENDMENT B

Attorney Docket: 3926.029

complementary polyelectrolytes and/or an initiator for a crosslinking reaction of the binder.